



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/619,572	07/16/2003	Yukiko Takeda	1213.42935X00	7099

24956 7590 05/20/2005

MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C.  
1800 DIAGONAL ROAD  
SUITE 370  
ALEXANDRIA, VA 22314

EXAMINER

SANTIAGO CORDERO, MARIVELISSE

ART UNIT	PAPER NUMBER
----------	--------------

2687

DATE MAILED: 05/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/619,572

Applicant(s)

TAKEDA ET AL.

Examiner

Marivelisse Santiago-Cordero

Art Unit

2687

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 and 25 is/are rejected.
- 7) ☒ Claim(s) 7,11,12,16,17,23 and 24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 7/16/03;8/17/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

2. The Information Disclosure Statements (IDS) filed on 7/16/03 and 8/17/04 have been considered by the examiner.

### ***Drawings***

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: "4d" (Fig. 1), "43A" and "43B" (Fig. 4). Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing-sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

4. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. **It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.**

5. The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code (page 6, lines 13-15, 19-21, 24-25; page 7, lines 3-5). Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

6. The disclosure is objected to because of the following informalities: the term "NM3" (page 16, line 11) should be replaced with --MN3-- and the reference character "536" (page 33, line 11) should be replaced with --535--.

Appropriate correction is required.

### ***Claim Objections***

7. Claims 7, 11-12, 16-17, and 23 are objected to because of the following informalities: in the 1<sup>st</sup> line of claim 7, the term "one of" should be deleted and in the 3<sup>rd</sup> line of the claim, one of the terms "said visited network" should be replaced with --said home network--; in the 3<sup>rd</sup> line of claim 11, the term "aid" should be replaced with --said--; in the 2<sup>nd</sup> line of claim 16, the term

Art Unit: 2687

"gateway device" should be replaced with --gateway equipment-- in order to be consistent throughout the claims; and in the 1<sup>st</sup> line of claim 23, the dependency of the claim should be replaced with --claim 21-- instead of "claim 11". Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 1-19 and 21-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitations "said host network" in the 5<sup>th</sup> line of the claim and "said acquired identifier" in lines 14-15 of the claim. There is insufficient antecedent basis for these limitations in the claim.

Claim 3 recites the limitation "said source address" in the 5<sup>th</sup> line of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim 8 recites the limitation "said mobile terminal" in the 2<sup>nd</sup> line of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim 10 recites the limitation "the source address" in the 4<sup>th</sup> line of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim 13 recites the limitations "said host network" in the 6<sup>th</sup> line of the claim, "said DNS terminal" in lines 17-18 of the claim, and "said mobile terminal address" in lines 19-20 of the claim. There is insufficient antecedent basis for these limitations in the claim.

Claim 21 recites the limitation "the source address" in the 4<sup>th</sup> line of the claim. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. Claims 1-5, 7-12, 20-23, and 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Tari et al. (hereinafter "Tari"; Pub. No.: US 2002/0199015).

Regarding claim 1, Tari discloses a communication system comprising a home network (Fig. 1, reference X) installed with a home agent (Fig. 1, reference MDBSX; page 6, paragraph [0084], last sentence) for holding mobile terminal location information (page 6, paragraph [0085]) and, a visited network (Fig. 1, reference Y) installed with a radio communications device for communicating with said mobile terminal (page 6, paragraphs [0083]-[0084]; note the base stations), and gateway equipment in said host network for forming an interface with said home network (Fig. 1, reference RSY1-RSY3; page 6, paragraph [0083]), wherein said radio communication device contains an access request transfer means for forwarding access requests from a mobile terminal of said visited network to said gateway equipment (page 6, paragraph [0087]), and said gateway equipment contains: an identifier request means for requesting an identifier for said mobile terminal from said home agent (pages 6-7, paragraph [0089]-[0092]; note that this paragraphs disclose the process of requesting the identifier from the home agent

Art Unit: 2687

MDBSX); and an identifier transfer means for forwarding said acquired identifier to said mobile terminal (page 7, paragraphs [0092]-[0094]).

Regarding claim 2, Tari discloses a communication system according to claim 1 from which it depends (see above), wherein along with making an identifier acquisition request, said identifier request means also requests acquisition of DNS server information from said home agent (page 7, paragraph [0092]; wherein the FQDN is the DNS server information), and said identifier transfer means forwards the acquired DNS server information along with said identifier to said mobile terminal (page 7, paragraphs [0092]-[0094]).

Regarding claim 3, Tari discloses a communication system according to claim 1 from which it depends (see above), comprising: a decision means for deciding whether or not authentication processing of said mobile terminal is required (page 6, paragraphs [0089]-[0090]; note that since the visited network components doesn't control and/or manage the mobile terminal, it decides that authentication is required by transmitting the information to a management server for further transmission to the home network), utilizing said source address of the access request from said mobile terminal moving in said host network (page 6, paragraphs [0089]-[0090]); and an authentication means for starting authentication processing of said mobile terminal when decided that authentication processing is required (pages 6-7, paragraphs [0091]-[0092]), wherein said identifier request means makes a request to said home agent for acquisition of said mobile terminal identifier after said authentication is successful (pages 7, paragraph [0092]).

Regarding claim 4, Tari discloses a communication system according to claim 3 from which it depends (see above), wherein said gateway equipment comprises a location information

Art Unit: 2687

holding means for holding location information on said mobile terminal in said visited network (page 6, paragraph [0088]), and said authentication means starts said authentication processing after said location information holding means has received a location registration request from said mobile terminal (page 7, paragraph [0092]).

Regarding claim 5, Tari discloses a communication system according to claim 4 from which it depends (see above), wherein said location information holding means holds location information on said mobile terminal after said authentication processing was successful (page 7, paragraph [0094]).

Regarding claim 7, Tari discloses a communication system according to one of claim 1 from which it depends (see above), comprising network management equipment connected to said visited network and said visited network (Fig. 1, reference number 10), wherein said home agent and said gateway equipment comprise an acquisition means for acquiring from said network management equipment, programs and data required for distributing identifiers and authenticating said mobile terminal (pages 6-7, paragraphs [0091] and [0093]).

Regarding claim 8, Tari discloses a gateway equipment (Fig. 1, reference RSY1-RSY3; page 6, paragraph [0083]) installed in a visited network (Fig. 1, reference Y) containing a radio communications device for communicating with said mobile terminal (page 6, paragraph [0083]; note the base stations), for forming an interface with the home network (Fig. 1, reference X) containing a home agent (Fig. 1, reference MDBSX; page 6, paragraph [0084], last sentence) for holding location information on said mobile terminal (page 6, paragraph [0085]), wherein said gateway equipment comprises: an identifier acquisition request means for requesting acquisition of an identifier for said mobile terminal from said home agent in response to an access request



from said mobile terminal in said visited network (pages 6-7, paragraph [0089]-[0092]; note that this paragraphs disclose the process of requesting the identifier from the home agent MDBSX); and an identifier transfer means for forwarding said acquired identifier to said mobile terminal (page 7, paragraphs [0092]-[0094]).

Regarding claim 9, Tari discloses a gateway equipment according to claim 8, wherein said identifier request means makes an identifier acquisition request and a DNS server information acquisition request to said home agent (page 7, paragraph [0092]; wherein the FQDN is the DNS server information), and said identifier transfer means forwards the acquired DNS server information along with said identifier to said mobile terminal (page 7, paragraphs [0092]-[0094]).

Regarding claim 10, Tari discloses a gateway equipment according to claim 8, comprising a decision means for deciding whether or not authentication processing using the source address for the access request from mobile terminal moving within said visited network is required (page 6, paragraphs [0089]-[0090]; note that since the visited network components doesn't control and/or manage the mobile terminal, it decides that authentication is required by transmitting the information to a management server for further transmission to the home network); and an authentication means for starting authentication processing of said mobile terminal when decided that authentication is required (pages 6-7, paragraphs [0091]-[0092]), wherein said identifier request means makes a request to said home agent to acquire the identifier of said mobile terminal, after said authentication was successful (pages 7, paragraph [0092]).

Regarding claim 11, Tari discloses a gateway equipment according to claim 10 comprising a location information holding means for holding said mobile terminal location

Art Unit: 2687

information (page 6, paragraph [0088]), wherein said authentication means starts said authentication processing after receiving a location registration request from said mobile terminal for said location information holding means (page 7, paragraph [0092]).

Regarding claim 12, Tari discloses a gateway equipment according to claim 11, wherein said location information holding means holds said mobile terminal location information after said authentication was successful (page 7, paragraph [0094]).

Regarding claim 20, Tari discloses an authentication method for a mobile terminal used in a communication system comprising a home network (Fig. 1, reference X) installed with a home agent (Fig. 1, reference MDBSX; page 6, paragraph [0084], last sentence) for holding mobile terminal location information (page 6, paragraph [0085]) and, a visited network (Fig. 1, reference Y) installed with a radio communications device for communicating with said mobile terminal (page 6, paragraphs [0083]-[0084]; note the base stations), and gateway equipment in said visited network for forming an interface with said home network (Fig. 1, reference RSY1-RSY3; page 6, paragraph [0083]), wherein said radio communication device forwards an access request from said mobile terminal of said visited network to said gateway equipment (page 6, paragraph [0087]), and said gateway equipment makes an acquisition request to said home agent for an identifier for said mobile terminal (pages 6-7, paragraph [0089]-[0092]; note that this paragraphs disclose the process of requesting the identifier from the home agent MDBSX), forwards said acquired identifier to said mobile terminal (page 7, paragraphs [0092]-[0094]), and authenticates said mobile terminal (page 6, paragraphs [0087]-[0088]; page 7, paragraph [0094]).

Regarding claim 21, Tari discloses an authentication method according to claim 20, wherein said gateway equipment decides whether or not authentication processing is required

Art Unit: 2687

using the source address of the access request from said mobile terminal moving within said visited network (page 6, paragraphs [0089]-[0090]; note that since the visited network components doesn't control and/or manage the mobile terminal, it decides that authentication is required by transmitting the information to a management server for further transmission to the home network), and performs authentication processing according to the method in claim 20, when decided that authentication is necessary (pages 6-7, paragraphs [0091]-[0092]).

Regarding claim 22, Tari discloses an authentication method according to claim 21, wherein said gateway device holds the location information of said mobile terminal in said visited network (page 6, paragraph [0088]), and performs authentication processing according to the method in claim 21 after receiving a location registration request from said mobile terminal (page 7, paragraph [0092]).

Regarding claim 23, Tari discloses an authentication method according to claim 11, wherein said gateway device holds said mobile terminal location information after said authentication was successful (page 7, paragraph [0094]).

Regarding claim 25, Tari discloses an authentication method according to claim 20, comprising a network management equipment connected to said home network and said visited network (Fig. 1, reference number 10), wherein said home agent and said gateway equipment acquire programs and data from said network management equipment required for distributing the identifiers and authenticating the mobile terminals (pages 6-7, paragraphs [0091] and [0093]).

***Allowable Subject Matter***

Art Unit: 2687

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Veerepalli et al. (Pub. No.: US 2003/0153324) discloses using home agent resources in a visited network; Terraoka (Pub. No.: US 2001/0028647) and Ju et al. (Pub. No.: US 2003/0067923) disclose DNS servers.

13. Claim 24 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 13-19 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Claim 6 is would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

None of the references of record alone or in combination teach or suggest: a mobile terminal comprising: an identification information creation means to acquire said identifier from said gateway equipment and create mobile terminal identification information; and a binding information registration means for registering information corresponding to a mobile terminal address created from said identifier and identification information of said mobile terminal, to a DNS server in a visited network, relay network or in a home network (Claim 6) or forwarding a packet addressed to the mobile terminal by registering mapping information along with said mobile terminal address generated from said identifier and said mobile terminal identification information in a DNS server within a relay network or home network (Claims 13-19, 24).

Art Unit: 2687

*Conclusion*

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marivelisse Santiago-Cordero whose telephone number is (571) 272-7839. The examiner can normally be reached on Monday through Friday from 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (571) 272-7922. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'W. R. Young', with a stylized, sweeping flourish at the end.

W. R. YOUNG  
PRIMARY EXAMINER